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DE WIJS

Design and production of stereoscopic instruments.

User manual for the rotary viewer model 2001
And software version 1.1

Contents

Introduction

This rotary viewer is a result of 30 years experience building public stereo slide viewing equipment. Every model had its improvements with regards to previous models meaning durability, stability and quality. This latest model has been build using the latest CAD-CAM techniques and production techniques. To give an idea of the changes to this model;
- The revolving drum is now motor driven.
- External control of the motor and lamp is possible through a parallel PC port.
- Internal amplifier for external speaker or phones available
- Automatic return to slide-zero function.
- The front panel and the casing of the rotary viewer can be taken away to build the whole mechanical part into a custom made casing.
- The backside of the viewer is inclusive the mains plug flat. This allows mounting against a wall or on a socle.

1. Directions for taking into operation

1.1 Opening the viewer.

Disconnect all cables from the viewer at the back.
Take both bolts out of the casing of the viewer at the front, see picture
Now grab the lens tubes, pull on these lenses upwards. This should release the mechanical construction from the casing; two pins at the top of the front panel are coming out of two holes in the casing. Pull the total mechanical construction out of the casing and place it on a flat solid table.
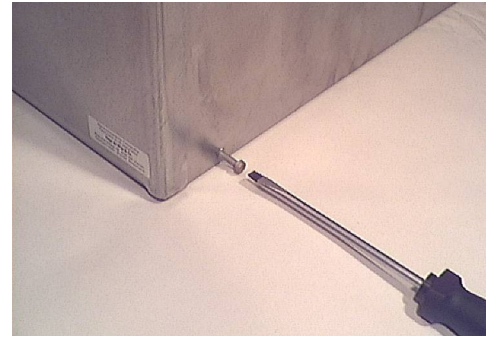
1.2 Where do I place the viewer?

Obviously you already have chosen a spot for the viewer in your museum, exhibition or other public environment. Here are some considerations that might help you to check the spot;

- Keep in mind the height of the viewer. Children and grown-ups both want to look in the viewer!
- Depending on the interest of the viewer, people might form a queue. This could cause congestion for the rest of the public.
- Watch out for sunlight coming through the lenses! The lenses will act like burn glasses on the slides. A few minutes in the sun will cause enough damage to the slide that it should be replaced. Within 1 day, in worst case, you have to replace all slides. You can see this on the slide like tiny little white spots showing the track of the sun during the day.
- Avoid spotlights to be shinning on the lenses. The slides are not going to be burned but it does shorten the lifecycle of the slide.
- Cover the back opening of the viewer with all its connectors and cables. Avoid the public to get access to this part of the viewer. Let the installation of the electrical cables be executed by authorised personal only.
- Do always provide a grounding facility to the casing of the viewer. By default the Euro connector provides a solid Earth connection.
- When the viewer is to be mounted inside some kind of panel, be sure you can get easy access to the viewer for replacing the lamp bulb and slides.

1.3 How can I mount the viewer?

- The rotary viewer can be used hanging on a wall or mounted on a table. At the back of the viewer and the bottom, 4 holes are located. It is recommended, in hanging position, to use a solid steel plate, which can be ordered at out company, together with the housing of the viewer, to mount against the wall. This avoids bending of the steel case when, for example, children hang on the lenses
- For temporary exhibitions, it is best to place the viewer on a table without any fixation to the table. Again, when children get access to the viewer, use double-sided tape to fix it to the table.

2. Manual operation (without PC control)

In this situation, the rotary viewer is used in stand-alone mode, without any external control devices. This mode is also recommended when inserting or changing the slides.

2.1 Inserting slides:
Disconnect all cables from the viewer at the back. Take both bolts out of the casing of the viewer at the front.

example with 41x101 mm. slide
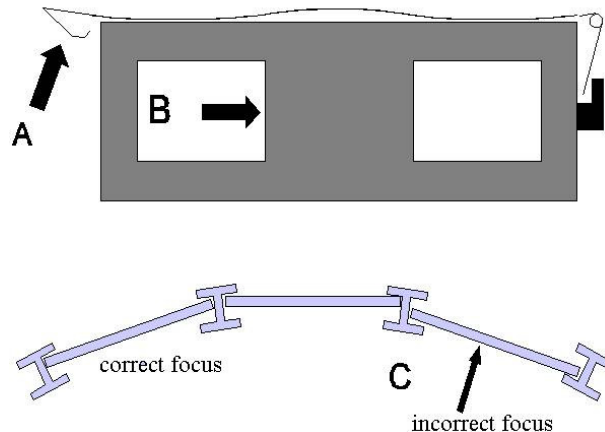
Now grab the lens tubes, pull on these lenses upwards. This should release the mechanical construction from the casing; two pins at the top of the front panel are coming out of two holes in the casing. Pull the total mechanical unit out of the casing and place it on a flat solid table.

The rotary viewer is able to work in 4 different modes, in stand-alone situation. These modes are configurable using the small switches at the back of the viewer. The black square marks the position of the switch.

Mode 1:
After the pre-set shut-off time, the lamp turns off and the viewer stays at this slide.

Mode 2:
After the pre-set shut-off time, the lamp turns off and the drum revolves to slide number 1.

Mode 3:
The lamp is always on, after the shut-off time the viewer stays at the current slide.
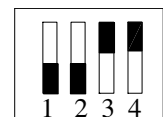
Mode 4:
The lamp is always on, after the shut-off time the drum revolves to slide number 1.
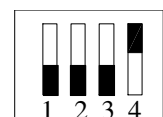
- The rotary viewer can now be turned on by connecting the power cable at the back of the viewer. BE SURE THAT THE VOLTAGE CORRESPONDS WITH THE MAIN VOLTAGE. Look at chapter 6.2 how to change this setting.
- You can adjust the shut-off time of the lamp by turning with a screwdriver the knob beside the small switches at the back of the viewer. Turning counter clockwise will increase the time, turning clockwise will decrease it.

3. Connection diagram

SW1: up- light turn-off delay active
down- light always on
SW2: up- front button passes signal to external device.
down- front button directly controls viewer
SW3: up- after light turns off, nothing happens
down- after light turns off, drum goes to slide N° 1
SW4: up- amplifier turned off
down- amplifier turned on

Main power supply
The viewer is preset to a certain Voltage, check this before plugging it to a wall socket

Fuse

external switch box

Viewer control interface

Language selection box

Dutch Enlish German French

Light turn-off delay

Line-in

Line-in cable at the CD-ROM is connected to the ear-plug or rear connector but NOT the sound-card.

Internal CD-ROM in PC

4. External control (with PC)

In this situation, the rotary viewer is able to operate according to a configured program with audible explanation of the slide. An IBM compatible PC is required to work with the accompanied software of the rotary viewer to control the rotary viewer.
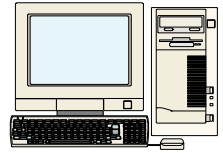
4.1 Setting up the equipment and cable connections

List of materials:
− Rotary viewer of 'de Wijs' model 2001 A, B or C.
− Language panel (if you need it).
− 2 Euro connector power cables.
− 1 parallel extension cable with a male D25 and female D25 plug.
− An IBM compatible x86 computer with at least 1 free parallel printer port connector and CD-ROM player, complete it with the usual keyboard, monitor, etc. (mouse not necessary)
− 3.5" Boot disk for the rotary viewer.
− An audio cable with 2,5 mm stereo jack to double cinch or headphones.
− 2 Loudspeakers of 4 ohms. 10 Watts maximum (optional).

Connect all cables according to the connection diagram (chapter 3). Depending on your situation you can decide to choose for headphones or loudspeakers. The rotary viewer has an internal amplifier for the loudspeakers. You can connect the speakers to the ¼" stereo jack.

Set the small switches at the back of the rotary viewer according to the picture on the right when you want to use the internal amplifier.
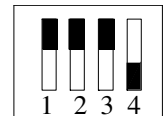
4.2 Turning on the rotary viewer and the computer for the first time

☞ Insert the bootdisk of the rotary viewer in the 3.5" disk drive of the computer. Be sure that the drum of the rotary viewer is free to revolve! Take any obstructions or half-inserted slides out of the drum.

☞ Turn the computer on and insert the power cable in the rotary viewer. Be sure that the sign of the voltage on the back is the same as your mains voltage. It is possible that during the start-up sequence, the lamp of the rotary viewer is turned on and off as well as the drum starts revolving and stops.

If you start-up this program for the first time, the program responds like:

```
Initialisation file not found, use now default settings

Do you want to stick to the Enlisch language? Press 1
Wilt U de taal veranderen in Nederlands? druk op 2
```

☞ Press on '1' to continue in the English language. The program resumes with the following message:

```
This is the first time you start the configuration program
Before making any program settings, the rotary viewer has to
be detected

Press <Enter> to continue......
```

☞ Press <Enter> to continue. The program resumes with the following message:

```
The Rotary viewer should be connected to the computers parallel printer
port according to the connection diagram in the manual chapter 3
Current LPT port unknown with a viewer of 21  41x101 (RBT/Realist) slide mount

Press <Enter> to start the detection
Press <Esc> for exit detection phase
```

☞ As soon as you press <Enter>, the program starts to detect the rotary viewer. Keep on pressing and releasing the front panel button until the program finds the right parallel port. Now press <Enter> to start the detection.

```
Press front pannel button of the rotary viewer
During the countdown of 10 seconds, starting now

If nothing happens continue to press and wait

Checking LPT port address $0378

            Time elapsed:  4 seconds
```

When the program fails to find the parallel port it responds with:

```
Press front pannel button of the rotary viewer
During the countdown of 10 seconds, starting now

If nothing happens continue to press and wait

Checking LPT port address $0378


                Time elapsed: 10 seconds

Rotary viewer not found on any parallel ports
Check connection of the rotary viewer to the PC
Check the power cables
Did you forget to press the front panel button?
Check the functionality of the available parallel port

Press <Enter> to continue......
```

☞ When it fails, press <Enter> to continue and the program repeats previous steps until it actually finds the correct parallel port and rotary viewer.

When the program succeeds in finding the correct parallel port, it responds with:

```
Parallel port connected to Rotary viewer found!
Drum is reversed to start position
Detecting number and size of the slides.....
Slide number 1
Slide number 2
Slide number 3
Slide number 4
Slide number 5
Slide number 6
Slide number 7
Slide number 8
Slide number 9
Slide number 10
Slide number 11
Slide number 12
Slide number 13
Slide number 14
Slide number 15
Slide number 16
Slide number 17
Slide number 18
Slide number 19
Slide number 20
Slide number 21
```

The program is counting the amount of slides and determines the type of rotary viewer. After that it should finish with the following message:

```
The current viewer model connected to this PC
works through LPTport address $0378 and is able
to contain 21  41x101 (RBT/Realist) slide mounts

The hardware detection is now finished!
Press <Enter> to continue......
```

☞ Press <Enter> to continue.

```
Are you using a language panel connected to the rotary viewer?

This panel is a small box with 4 buttons to select from four
language options from the CD-ROM. This panel can be used
in mode A B and C.

Current status: No language panel will be connected!

Do you want to change this <Yes/No>?
```

☞ If you want to have more than one language accompanying your slides, you need a language panel. Press <Y> if you want to have a language panel. The program responds with:

```
The status has been changed: A panel wil be connected
The front panel button function is now disabled in mode B and C
```

You are now finished with the initial settings of the rotary viewer. The program will respond with showing the main menu:

4.3 Program modes

The software enables the rotary viewer to operate in different modes. Each mode has its own specific way of handling the CD-ROM audio tracks, timing and interaction with the spectator.

```
                    De Wijs stereoscopic instruments

                Configuration program of rotary viewer 2001
                      version 1.1 May 2002 English

     ┌────────────────────────────────────────────────────────────┐
     │  The current configuration mode is:                         │
     │                                                             │
     │  A. The spectator uses the button to control the moment of slide change. │
     │     Each slide will be accompanied by an individual sound-track │
     │     from the CD-ROM.                                        │
     └────────────────────────────────────────────────────────────┘

         Select number <1 - 8>

     <1> Detecting computer connection, number and size of slides
     <2> Change configuration mode to program A, B, C or D
     <3> Assigning audio tracks to slides
     <7> Verander taal / Change language
     <8> Save current configuration

         Press <Esc> for Exit program
```

☞ In the main menu, press option <2> and a list of modes A-D is displayed with a description:

```
         Press <A-D> to select the program mode

     A. The spectator uses the button to control the moment of slide change.
        Each slide is accompanied by an individual sound track (from the CD-ROM).

     B. The computer controls the moment of slide change with one press
        of the button. One track will be played with the interval time equally
        divided over the total duration of this track.

     C. The computer controls the moment of slide change with one press
        of the button. A sound track will be played, the moment of slide
        change has to be configured in this program.

     D. The computer  changes the slide according to a configured time
        interval. The spectator can set a shorter time interval by pressing
        the button before the configured interval time elapses

         Press <Esc> to cancel selection.
```

☞ Decide what mode matches your requirement and chose that mode by pressing <A, B, C or D>.

The program returns to the main menu, displaying the chosen mode on top of the screen. Follow the appropriate instructions in 4.4 / 4.5 / 4.6 or 4.7 that belong to your chosen mode.

4.4 Configuring mode A

The spectator controls the moment of slide change. Each slide will be accompanied with a sound track from the CD-ROM. Be sure you have a list of audio-CD tracks prepared for each slide with the selected language. To give an indication of the 'play-out' scenario look at the picture below. The big downwards aiming arrow is standing for the elapsed time.

Program mode A scenario example

Show time slides in seconds	Kind of slide escort
8	Spoken text or audio fragment for slide number 1
2	extra viewing time+ slide change of 1 second.
10	Spoken text or audio fragment for slide number 2
5	extra viewing time+ slide change of 1 second.
12	Spoken text or audio fragment for slide number 3
1	slide change of 1 second.
10	Spoken text or audio fragment for slide number 4
1	slide change of 1 second.
8	"
1	"
7	"
1	"
11	"
1	"
10	"
1	"
9	"
1	"
12	"
1	"
10	"
1	"
9	"

time for audio CD track 1 — Slide 1
Waiting time for front panel button to change slide
audio CD track 2 — Slide 2
Waiting time for front panel button to change slide
audio CD track 3 — Slide 3
audio CD track 4 — Slide 4
audio CD track 5 — Slide 5
audio CD track 6 — Slide 6
audio CD track 7 — Slide 7
audio CD track 8 — Slide 8
audio CD track 9 — Slide 9
audio CD track 10 — Slide 10
audio CD track 11 — Slide 11
audio CD track x — Slide x

elapsed Time

At last slide; return to start position

In this mode, each slide will be accompanied with its own audio CD-Track.

☞ Programming this mode is not that difficult. Press on option <3> on the main menu screen. The program will ask you how many slides you want to insert in the drum:

```
Currently there are 21 slides inserted in the drum
Do you want to change this number? <Yes/No>_
```

☞ Press <Y> when you want to change that number, press <N> if you don't want to change it. Follow the instructions on the screen when you want to change it.
After that the program asks how many languages the rotary viewer should support:

```
Number of languages currently set:  1
Do you want to change this number? <Yes/No>_
```

☞ Press <Y> when you want to change that number, press <N> if you don't want to change it. Follow the instructions on the screen when you want to change it.
After that the program shows the slide number – CD audio track assignment:

The left column shows the slide number.
The other four columns are showing the audio-CD track numbers for each language.

Language selection:
At the back of the rotary viewer it is possible to connect a language selection box. This is a box with 4 buttons representing 4 languages. Especially for mode A, B and C it is important to instruct the software which track should be played when a language button is pressed.
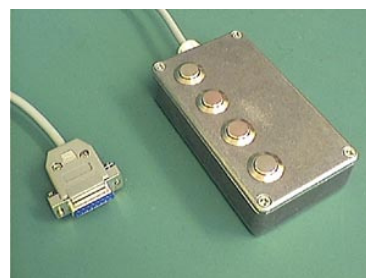
☞ With the arrow keys (⇦⇨⇧⇩) on the keyboard you can move the cursor around in this table to the audio-CD track to be edited.
☞ Use your prepared list of audio-CD tracks to be played for a certain slide and language. Type these track numbers in the corresponding columns.
☞ As soon as you have typed a track number, you can check this track by pressing <P> for playing this track and <S> for stop playing.

As example look at slide number 3. As soon as the viewer arrives at slide number 3 it will play audio CD-track 3. When the spectator is pressing language button 2, the viewer won't change the slide but starts playing audio track 24, etc. Look at the picture below….

slide nr.	language 1 CD track	language 2 CD track	language 3 CD track	language 4 CD track
1	1	22	1	1
2	2	23	1	1
3	3	24	1	1
4	4	25	1	1
5	5	26	1	1
6	6	27	1	1
7	7	28	1	1
8	8	29	1	1
9	9	30	1	1
10	10	31	1	1
11	11	32	1	1
12	12	33	1	1
13	13	34	1	1
14	14	35	1	1
15	15	36	1	1
16	16	37	1	1
17	17	38	1	1
18	18	39	1	1
19	19	40	1	1
20	20	41	1	1
21	21	42	1	1

Press on key ↑ ↓ ◄ ► and type track numbers
Press <p> for playing track, <s> for stop playing, <Esc> to Exit

☞ As soon as you have filled in the table according to your 'play list', Press <Esc> to exit this screen. The following question appears:

```
The silent period for each slide after playing
the audio track is now:  1 seconds

Press <Enter> to skip
Do you want to change this period? <Yes/No>
```

☞ The silent period is the time that elapses after the audio-CD track has finished with playing for each slide. Press <Y> to change this setting. Type the new period of <15> seconds and press <Enter>. The program will then automatically return to the main configuration menu.

☞ To save all these settings press <8>.

☞ Press <Esc> to exit the configuration program. Automatically the presentation program starts after a countdown of 10 seconds.

```
Press <Enter> within the current 10 seconds to startup
the rotary viewer 2001 configuration program

Press <Esc> to quit this program.

If you do nothing, the computer will run the already
configured program

Seconds left:  6_
```

☞ During the presentation session, you can interrupt the program by pressing <Enter> on the keyboard to the configuration program allowing you to make any adjustments.

```
Software version: 1.1 May 2002 English

The current configuration mode is:

A. The spectator controls the moment of slide change.
   Each slide will be accompanied with an individual sound-track
   from the CD-ROM.

Drum is revolved back to start position
Waiting for button to be pressed.....
```

☞ Screen during presentation……

4.5 Configuring mode B.

The computer controls the moment of slide change. One track will be played and the interval time is equally split up over this track.

Program mode B scenario example

Waiting time for front panel button to change slide

elapsed Time

One long audio CD-track

Slide 1
Slide 2
Slide 3
Slide 4
Slide 5
Slide 6
Slide 7
Slide 8
Slide 9
Slide 10
Slide 11
Slide x

At last slide; return to start position

Show time slides in seconds	Kind of slide escort
12	Music, natural sounds. Sound that is not stricly related to one specific slide.
1	slide change of 1 second.
12	Music, natural sounds. Sound that is not stricly related to one specific slide.
1	slide change of 1 second.
12	Music, natural sounds. Sound that is not stricly related to one specific slide.
1	slide change of 1 second.
12	Music, natural sounds. Sound that is not stricly related to one specific slide.
1	slide change of 1 second.
12	"
1	"
12	"
1	"
12	"
1	"
12	"
1	"
12	"
1	"
12	"
1	"
12	"
1	"
12	"

In this mode, there is only one audio CD-track, the duration of the track will be divided over the available slides.

```
              De Wijs stereoscopic instruments

              Configuration program of rotary viewer 2001
                     version 1.1 May 2002 English

    ┌─────────────────────────────────────────────────────────────┐
    │ The current configuration mode is:                            │
    │                                                               │
    │ B. The computer controls the timing of slide change with one press of │
    │    the button. A sound-track will be played with the interval time │
    │    divided equally over the total duration of this track.     │
    └─────────────────────────────────────────────────────────────┘

        Select number <1 - 8>

    <1> Detecting computer connection, number and size of slides
    <2> Change configuration mode to program A, B, C or D
    <4> Assign track and split it up in equal time slices
    <7> Verander taal / Change language
    <8> Save current configuration

        Press <Esc> for Exit program
```

☞ In the main configuration screen press <4>. The program first asks you how many slides are inserted:

```
Currently there are 21 slides inserted in the drum
Do you want to change this number? <Yes/No>_
```

☞ Press <Y> when you want to change that number, press <N> if you don't want to change it. Follow the instructions on the screen when you want to change it.
After that the program asks how many languages the rotary viewer should support:

```
Number of languages currently set:  1
Do you want to change this number? <Yes/No>_
```

☞ Press <Y> when you want to change that number, press <N> if you don't want to change it. Follow the instructions on the screen when you want to change it.
After that the program shows the CD audio track assignment:

```
slide nr.   language 1     language 2     language 3     language 4
            CD track       CD track       CD track       CD track
All slides    _1              1              1              1
```

```
Press on keyboard ◄ ► and type the audio track number
Press <p> for playing track, <s> for stop playing, <Esc> to Exit
```

The four columns are showing the audio-CD track numbers for each language.

Language selection:
At the back of the rotary viewer it is possible to connect a language selection box. This is a box with 4 buttons representing 4 languages. Especially for mode A, B and C it is important to tell the software which track should be played when a language button is pressed.
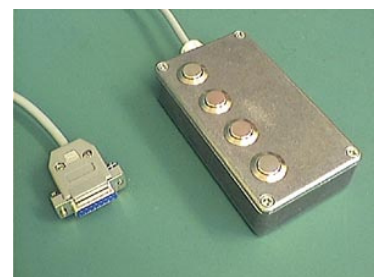
☞ With the arrow keys (⇦⇨) on the keyboard you can move the cursor to the audio-CD track to be edited.

☞ You should have worked out a list of audio-CD tracks to be played for a certain language. Type these track numbers at the corresponding languages.

☞ As soon as you have typed a track number, you can check this track by pressing <P> for playing this track and <S> for stop playing.

☞ As soon as you have filled in the table according to your 'play list', Press <Esc> to exit this screen. All available audio CD track languages are now being tested on duration.

```
Put the right audio CD in the CD-ROM drive
The CD-ROMaudio track will be checked now based on the
language track 1, that is track 1

Press <Enter> to start the check
Press <Esc> to cancel current check
```

☞ Insert your audio CD in the CD-ROM player of the PC and press <Enter>. When the track is accepted, the program responds with:

```
Put the right audio CD in the CD-ROM drive
The CD-ROMaudio track will be checked now based on the
language track 1, that is track 1

Press <Enter> to start the check
Press <Esc> to cancel current check

Duration of the whole track is:        210 seconds
Total number of inserted slides is currently:    21 slides
Time for one single slide is:          10 seconds

The chosen track is accepted

Press <Enter> to continue......
```

☞ When you have more than one language, press <Enter> to continue and the program will resume with the other languages to be tested. If this is not the case, the program returns to the main configuration menu.

Behaviour of language selection during the play-out session.
When you only have one language available, only the front panel button allows the spectator to start a presentation. When you have 2-3 languages available, the front panel button will be disabled. You can start the presentation with the buttons on the language panel. During a presentation, the program will ignore any buttons to be pressed. It only responds as soon as a presentation finishes.

☞ To save all these settings press <8>.

☞ Press <Esc> to exit the configuration program. Automatically the presentation program starts after a countdown of 10 seconds.

```
Press <Enter> within the current 10 seconds to startup
the rotary viewer 2001 configuration program

Press <Esc> to quit this program.

If you do nothing, the computer will run the already
configured program

Seconds left:  6_
```

☞ During the presentation session, you can interrupt the program by pressing <Enter> on the keyboard to the configuration program allowing you to make any adjustments.
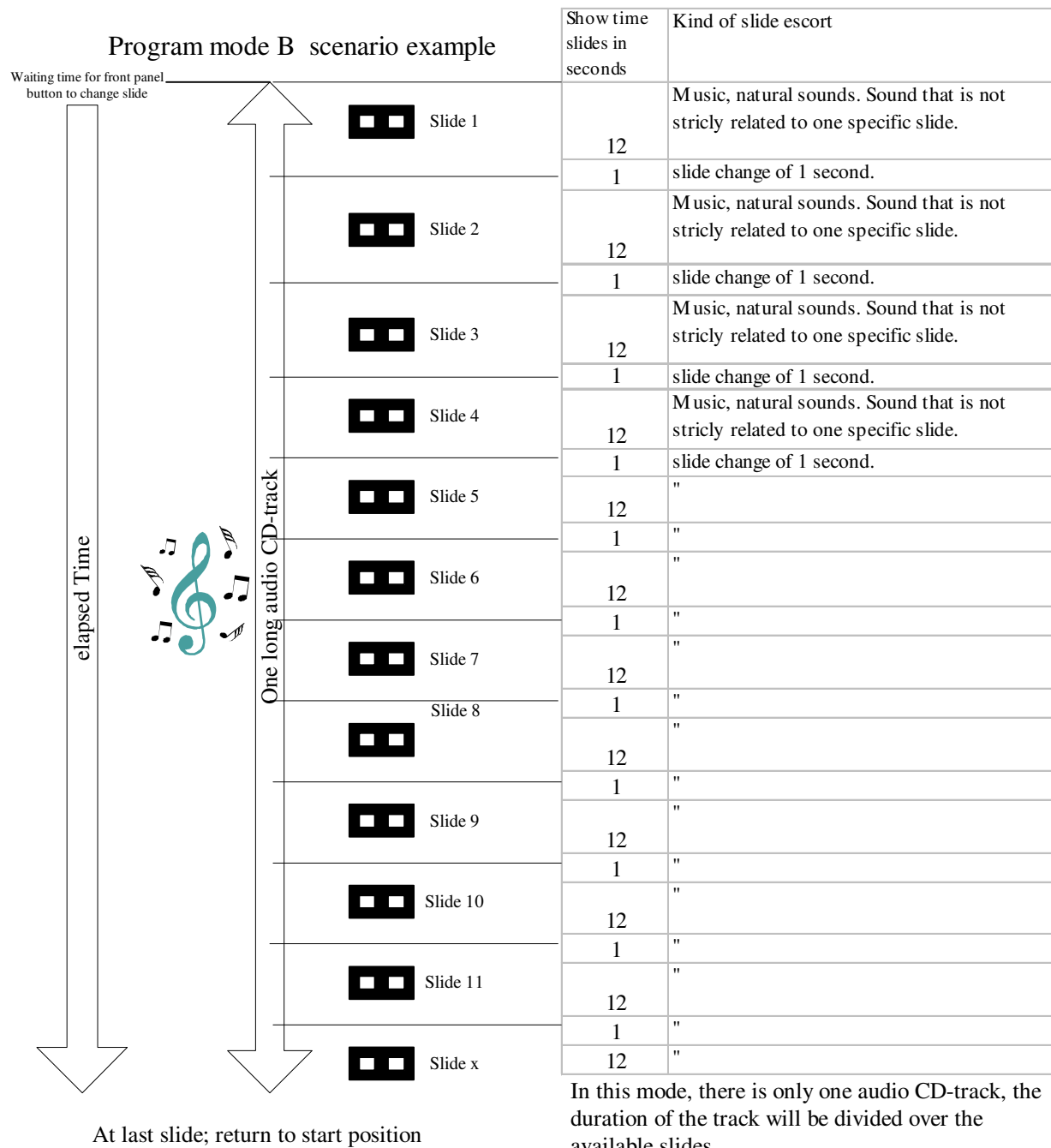
```
The current configuration mode is:

B. The computer controls the moment of slide change.
   One sound-track will be played and the interval time is equally
   devided over the duration of this track.

Drum is revolved back to start position
The calculated interval time is: 7.2 seconds
Waiting for button to be pressed.....
```

☞ Screen during presentation……

4.6 Configuring mode C.

The computer will change the change the slide according to a <u>configured</u> time interval.
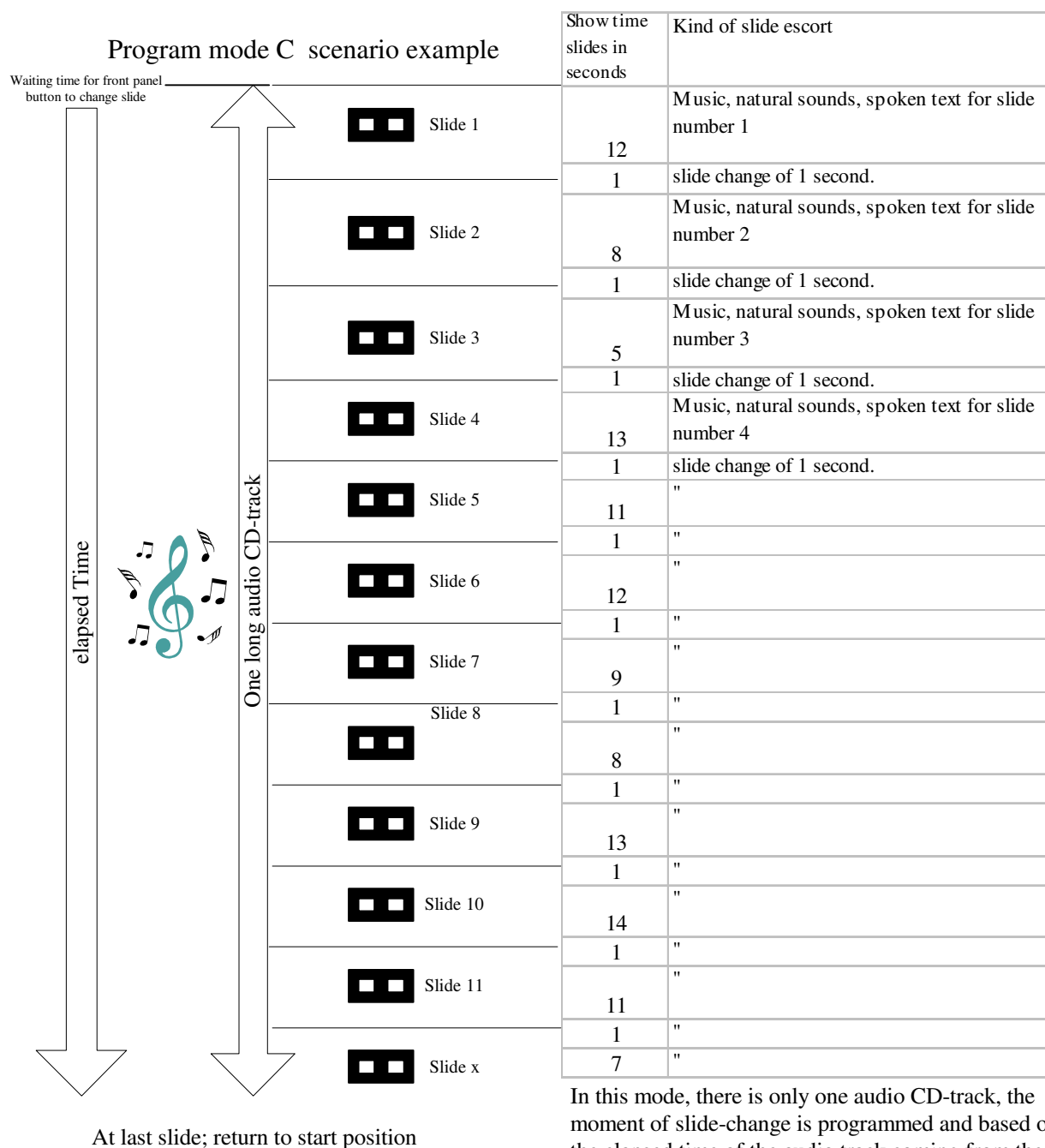
Program mode C scenario example

Show time slides in seconds	Kind of slide escort
12	Music, natural sounds, spoken text for slide number 1
1	slide change of 1 second.
8	Music, natural sounds, spoken text for slide number 2
1	slide change of 1 second.
5	Music, natural sounds, spoken text for slide number 3
1	slide change of 1 second.
13	Music, natural sounds, spoken text for slide number 4
1	slide change of 1 second.
11	"
1	"
12	"
1	"
9	"
1	"
8	"
1	"
13	"
1	"
14	"
1	"
11	"
1	"
7	"

At last slide; return to start position

In this mode, there is only one audio CD-track, the moment of slide-change is programmed and based on the elapsed time of the audio track coming from the CD-ROM player.

```
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Configuration program of rotary viewer 2001
         version 1.1 May 2002 English

┌─────────────────────────────────────────────────────────────┐
│ The current configuration mode is:                            │
│                                                               │
│ C. The computer controls the timing of slide change with one press of │
│    the button. A sound track will be played, the moment of slide change │
│    has to be configured in this program.                      │
└─────────────────────────────────────────────────────────────┘

   Select number <1 - 8>

<1> Detecting computer connection, number and size of slides
<2> Change configuration mode to program A, B, C or D
<5> Program slide-change moment manually during one long single track
<7> Verander taal / Change language
<8> Save current configuration

   Press <Esc> for Exit program
```

☞ Press <5> to go to the mode C settings-menu:

```
Mode C settings menu

Select number <1-4>

<1> Change number of languages, currently set at  1
<2> Change number of inserted slides, currently set at 21
<3> Change the link between language number and audio-CD track
<4> Record the slide change time-stamps for a language
<Esc> for exit
```

☞ Press option <1> if you want to change the number of available languages.
☞ Press option <2> if you want to change the number of inserted slides.

☞ Press option <3> and the following screen will appear:

```
slide nr.   language 1     language 2     language 3     language 4
            CD track       CD track       CD track       CD track
All slides    _1              1              1              1


















Press on keyboard ◄ ► and type the audio track number
Press <p> for playing track, <s> for stop playing, <Esc> to Exit
```

The four columns are showing the audio-CD track numbers for each language.

Language selection:
At the back of the rotary viewer it is possible to connect a
language selection box. This is a box with 4 buttons
representing 4 languages. Especially for mode A, B and C it
is important to instruct the software which track should be
played when a language button is pressed.

☞ With the arrow keys (⇦⇨) on the keyboard you can move the cursor to the audio-CD track to be edited.

☞ You should have worked out a list of audio-CD tracks to be played for a certain language. Type these track numbers at the corresponding languages.

☞ As soon as you have typed a track number, you can check this track by pressing <P> for playing this track and <S> for stop playing.

☞ As soon as you have filled in the table according to your 'play list', Press <Esc> to exit this screen and the program will return to the mode C settings-menu.

☞ Press <4> to go to the time recording procedure. First the following question appears:

For which language do you want to record the time stamps? <1,2,3,4>

☞ Press <1,2,3 or 4> to select the language for which you want to record the slide transitions. Then the program asks to insert your audio-CD ROM in the CD-ROM drive:

Put the right audio CD in the CD-ROM drive
Press <Enter> to continue......

☞ Insert the audio-CD ROM and press <Enter>. The recording screen is displayed.

slide nr.	Remaining seconds	Time interval between slides
1	174	5 seconds
2	167	7 seconds
3	160	7 seconds
4	148	12 seconds
5	138	10 seconds
6	127	11 seconds
7	117	9 seconds
8	102	15 seconds
9	92	10 seconds
10	85	7 seconds
11	79	6 seconds
12	0	0 seconds
13	0	0 seconds
14	0	0 seconds
15	0	0 seconds
16	0	0 seconds
17	0	0 seconds
18	0	0 seconds
19	0	0 seconds
20	0	0 seconds
21	0	0 seconds

Press <Enter> to record the time for slide change

☞ Press <Enter> and the actual recording starts;
♦ the rotary viewer changes the first slide, the lamp turns on.
♦ The audio-CD is played and you hear the contents of the track.
♦ Use your prepared script on which moment the rotary viewer should change the slide. When you hear that moment passing by, press <Enter>. That moment is now recorded and the rotary viewer will change to the next slide.

☞ Repeat previous steps for all other slides until you finished them all. After that press <Esc> to return to the mode C settings menu.

☞ You can select option 4 to record time transitions for other languages.

☞ Press <Esc> to exit the mode C settings menu.

Behaviour of language selection during the play-out session.
When you only have one language available, only the front panel button allows the spectator to start a presentation. When you have 2-3 languages available, the front panel button will be disabled. You can start the presentation with the buttons on the language panel. During a presentation, the program will ignore any buttons to be pressed. It only responds as soon as a presentation finishes.

☞ To save all these settings press <8>.

☞ Press <Esc> to exit the configuration program. Automatically the presentation program starts after a countdown of 10 seconds.

```
Press <Enter> within the current 10 seconds to startup
the rotary viewer 2001 configuration program

Press <Esc> to quit this program.

If you do nothing, the computer will run the already
configured program

Seconds left:  6_
```

☞ During the presentation session, you can interrupt the program by pressing <Enter> on the keyboard to the configuration program allowing you to make any adjustments.

```
The current configuration mode is:

C. The computer controls the moment of slide change.
   One sound-track will be played, the moment of slide change has to be
   configured in this program.
```
```
Drum is revolved back to start position
Waiting for button to be pressed.....
```

☞ Screen during presentation……

4.7 Configuring mode D.

The computer will change the slide according to a configured time interval.

Program mode D scenario example

Waiting time for front panel button to change slide

elapsed Time

Show time slides in seconds	Kind of slide escort
10	No audio, only text card on the revolving drum
1	slide change of 1 second.
10	No audio, only text card on the revolving drum
1	slide change of 1 second.
10	No audio, only text card on the revolving drum
1	slide change of 1 second.
10	No audio, only text card on the revolving drum
1	slide change of 1 second.
10	"
1	"
10	"
1	"
10	"
1	"
10	"
1	"
10	"
1	"
10	"
1	"
10	"
1	"
10	"

Slide 1

Slide 2

Slide 3

Slide 4

Slide 5

Slide 6

Slide 7

Slide 8

Slide 9

Slide 10

Slide 11

Slide x

At last slide; return to start position

In this mode, there is no audio escort of the slide. The moment of slide change is based on the fixed configured time interval.

```
De Wijs stereoscopic instruments

Configuration program of rotary viewer 2001
        version 1.1 May 2002 English

┌──────────────────────────────────────────────────────────────┐
│ The current configuration mode is:                             │
│                                                                │
│ D. The computer will change the slide according to a configured time │
│    interval. The spectator can set a shorter time interval     │
│    by pressing the button before the configured time interval elapses │
└──────────────────────────────────────────────────────────────┘

   Select number <1 - 8>

<1> Detecting computer connection, number and size of slides
<2> Change configuration mode to program A, B, C or D
<6> Set interval time of slide-change without audio
<7> Verander taal / Change language
<8> Save current configuration

   Press <Esc> for Exit program
```

☞ Press option <6>. The program asks how many slides are inserted:

```
Currently there are 21 slides inserted in the drum
Do you want to change this number? <Yes/No>_
```

☞ Press <Y> if you want to change the number of slides. Press <Enter> or <N> to stay with the current number. The program resumes with the interval time setting:

```
The current interval time is set at 10 seconds
Press <Enter> to skip
Do you want to change this <Yes/No>?
```

☞ Press <Y> if you want to change the interval time. Press <Enter> or <N> to stay with the current interval time. The program returns to the main configuration screen.

☞ To save all these settings press <8>.

☞ Press <Esc> to exit the configuration program. Automatically the presentation program starts after a countdown of 10 seconds.

```
Press <Enter> within the current 10 seconds to startup
the rotary viewer 2001 configuration program

Press <Esc> to quit this program.

If you do nothing, the computer will run the already
configured program

Seconds left:  6_
```

☞ During the presentation session, you can interrupt the program by pressing <Enter> on the keyboard to the configuration program allowing you to make any adjustments.

```
┌──────────────────────────────────────────────────────────────┐
│ The current configuration mode is:                             │
│                                                                │
│ D. The computer will change the slide according to a configured time │
│    interval. The spectator is still able to control the moment of slide │
│    change but it has to be sooner then the configured interval time │
│    Current time interval is set to: 10 seconds for 21 slides.  │
└──────────────────────────────────────────────────────────────┘
Drum is revolved back to start position
Waiting for button to be pressed.....
```
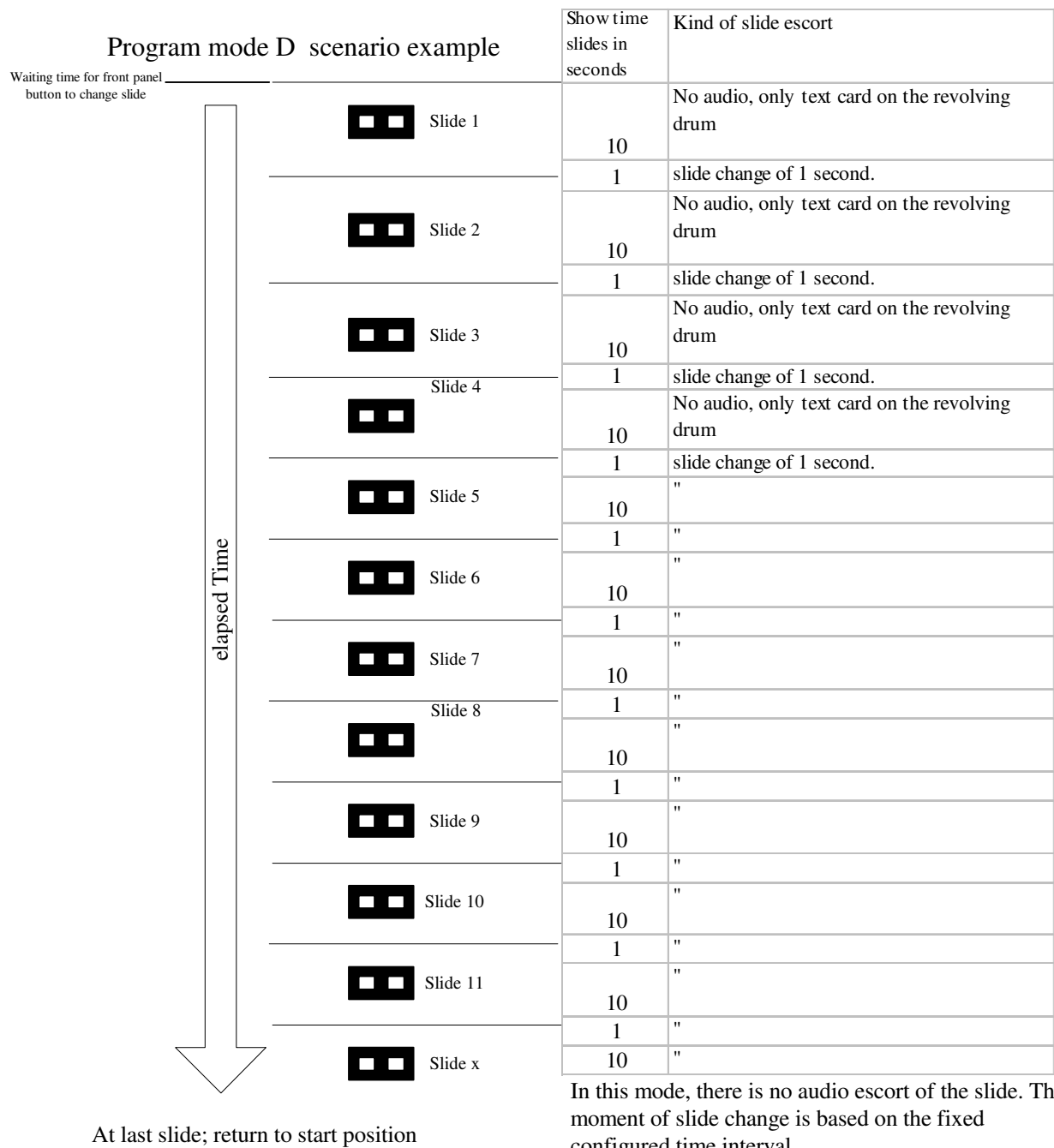
   Screen during presentation……

Note: The spectator is always able to change the slide faster than the interval time.

5.   Maintenance

In general does the rotary viewer not need any mechanical maintenance using it on a fixed location and handled with care. The viewer is made quite solid with the aim to guarantee the best optical alignment of the lenses as long as the life cycle of the viewer is. A hard impact at the front, like tumbling from a table, causes inevitable miss-alignment of the drum and a bend frame. So be careful when transporting the viewer and arrange a stable spot to place the viewer. Besides these incidents, the viewer gets covered with a thin layer of dust, outside as well as inside.

5.1 Cleaning slides.

Open the viewer according to the actions to be taken in chapter 1.1
You have two types of slide mounts;
-    mounted in masks and encased in glass.
-    mounted in frames without glass

Encased in glass:
In this case you do not have to take the slides out of the drum. Best is to turn the rotary viewer into manual operation (chapter 2.1 mode 2). Take a soft cloth, clean the slide first at the outside of the drum. Secondly clean it at the inside of the drum. When cleaning it push it a little inside out of the drum to preserve fixed focus position of the slide.

Without glass:
This is a difficult situation. Slide frames without glass are very fragile. Taking them out of the drum, cleaning them, and replace them back again often causes damage to the slide. So if you can, take a soft brush and wipe the dust away at both sides. When the dust is too much, then there is no other way than taking them out of the drum. Try cleaning it with the brush and finally with a soft lens cleaning cloth. Be very careful, some clothes can even scratch the slides, or decreases the clearness.

5.2 Changing the lamp

- Open the viewer according to the actions to be taken in chapter 1.1
- At the left side of the frame is a square hole located in the metal frame that gives access to the lamp. By just pulling on the bulb with your fingertips would release it from its socket.
- Replace the lamp with a similar model and colour temperature of at least 5000 K° or in more common words: Philips PL 84 or Osram PL 34, both for 9 Watts. This colour temperature is important to let the slide give its original colour in stead of the lamp, 5000 K° gives almost white.

When you transport the viewer, it is recommended you take the lamp bulb out of the viewer. It happens often that the lamp drops out of its socket and breaks during transport.

5.3 Cleaning / Exchanging the lenses.

After several years of use the lenses are scratched and dust is coming between the two achromatic lenses. The lenses are can be taken apart to clean them. Follow the following steps:

1. Take the inner mechanical part out of its cover.
2. Just behind the front plate, where the two barrels are mounted, is an aluminium plate mounted in which the lens barrels are screwed. See the picture at the right.
3. Unscrew the bolts just a little, which allows you now to unscrew the two lens barrels from the viewer.
4. Unscrew the two lens barrels out of the viewer.
5. Now you need to make a small little metal plate of 1 mm. Thickness. With a length of about 60 mm. And exactly 37 mm. Width.

6. Now put the metal plate in the back off the barrel and be sure it fits in the small gaps of the screw ring that keeps the lenses in its barrel as shown in right picture…
7. Turn the metal plate counter clockwise to release the screw.
8. When the screw is released, take a soft cloth and put it with your finger in the back of the lens barrel against the lenses.
9. Turn the total barrel upside down so the lenses will drop out of the barrel.
10. Warning!! The lenses do have a front and backside. The front (view side) is the side with the most flat surface. This counts for both lenses.
11. With a soft clothe and a brush cleans the lenses. Look through the lenses against the light to check cleanliness they might show remaining dust of scratches.
12. If you decide to replace the lenses, you can order them at the De Wijs Company.
13. Put the lenses together and follow the steps (1-10) in reverse.
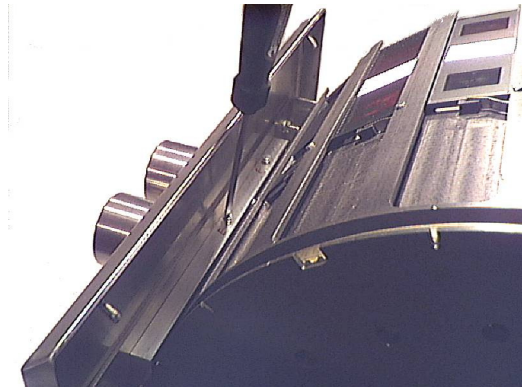
5.4 Solving miss-alignment.

Especially during installing the viewer in a public viewing area, parts of the viewer have to be de-assembled. The drum is the most sensitive part to be aligned for the lenses. The axis of the slide drum is mounted in brackets. These brackets allow the drum to be moved to the front or to the back of the viewer and up and down. To make the re-alignment somewhat easier you can check some measurements to get the drum roughly in position, see the picture below.
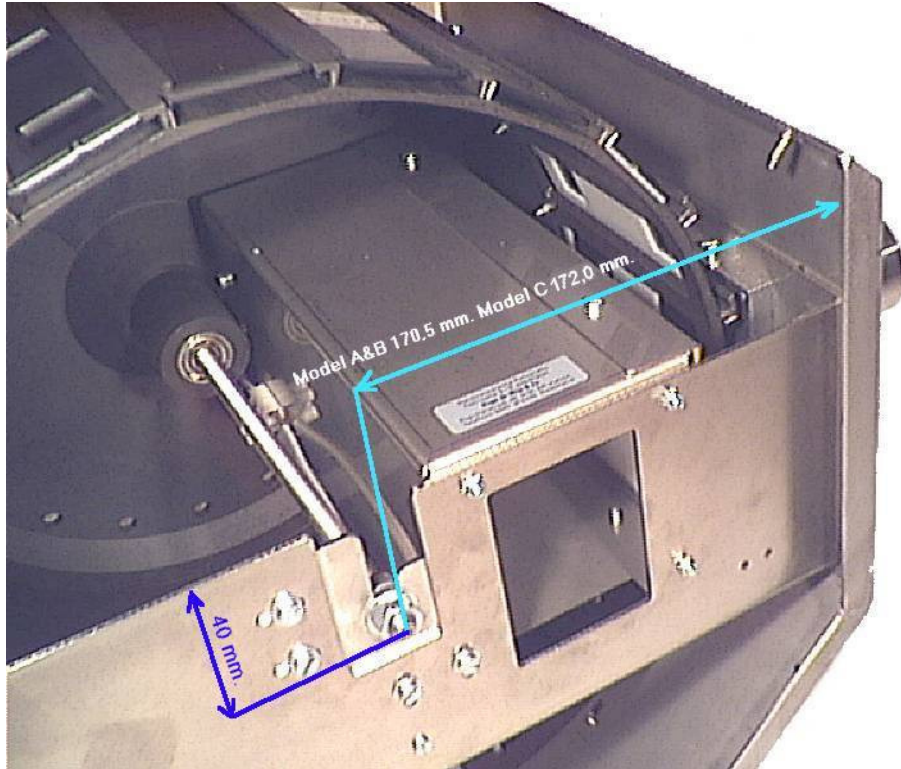
The distance from the centre of the axis to the inner side of the front plate is:
-   For rotary viewer model A&B, that is 41x101 mm. and 50x50 mm. Frames, 170,5 mm.
-   For rotary viewer model C, that is 60x130mm., 172,0 mm.

The distance from the centre of the axis to the top edge of the frame is 40 mm for all models. you have to be sure that the slide is visible in the middle of the lenses. So the total drum can be shifted to the left or right by turning the nuts on the axis.
CAUTION: the optical switches just behind the front plate, close to the push button are fragile and need to be handled with care when taking the drum out of the frame or replacing it.

6. Technical data

6.1 Sizes and dimensions

Rotary viewer 2001 model A, for 41x101 mm. Frames
− Maximum picture format: 28x33 mm.
− Lenses: double coated achromatic ø 37 mm. F= 120 mm. (total 60 mm.)
− Maximum amount of slides: 21.
− Text card size: ??

Rotary viewer 2001 model B, for 50x50 mm. Frames
− Maximum picture format for 50x50 mm. Frames: 36x36 mm.
− Lenses: double coated achromatic ø 37 mm. F= 120 mm. (total 60 mm.)
− Maximum amount of slides: 17
− Text card size: ??

Rotary viewer 2001 model C for 60x130 mm. Frames.
− Maximum picture format for 60x130 mm. Frames: 55x55 mm.
− Lenses: Single coated achromatic ø 33 mm. F= 100 mm.
− Maximum amount of slides: 14
− Text card size: 58x63 mm.

General data:
− Weight rotary viewer with front plate: 12,5 kg. Cover: 6,6 kg.
− Illumination: 9 Watt PL tube light, model cool white.
− Size of milk glass to diffuse the light: 205x86 mm.
− Power supply: 220 Volts or 110 Volts. This is a fixed setting on the Printed Circuit Board (PCB). To change this, look at chapter 6.2
− Power consumption:…… Watt.
− The rotary viewer is fused for 1 A slow.
− On the PCB are also 2 fuses located for 5Volt dc. and 12 Volt dc both for 1 A slow.
− Amplifier: the input of the amplifier should be pre-amplified.
− Output impedance of 4 ohms for the speakers.
− Maximum audible output power is 10 Watts for each speaker.
− D25 connector providing an interface to an XT/AT parallel port of a computer.
− D15 connector providing an additional interface to an external language selection device.
− The D15 connector is also providing an external stabilised power supply of +5 and +12 Volts.
− Adjustment of the turn-off time of the lamp is possible between 5-70 seconds.
− The software that is provided with the rotary viewer is written in Pascal 7.0 and runs on DOS. On almost every x86 machine with CD-ROM player the software will work. A Windows version will be available in the future.

6.2   Changing main power voltage 220 Volt <-> 110 Volt.

Most European countries use 220 – 240 Volt. The US uses 110 Volts. The rotary viewer can be switched between these two voltage options. To do this is not easy and it requires some technical skill: follow the next steps.

1. Take the total mechanical part out of it's housing.
2. Disassemble the back cover of the electronic circuitry.
3. Disconnect all cables and leads (remember their position).
4. Disassemble the PCB.
5. Now look at picture … of the PCB. There are 2 yellow lines drawn, showing the connections to be made when running the viewer on 110 Volts. The bleu line is the connection to be made in 220-240 Volt configuration.
6. Re-assemble the PCB back, the cables and the back cover of the electronic part.
7. Put a sign on the back panel indicating the actual of voltage setting!!!!
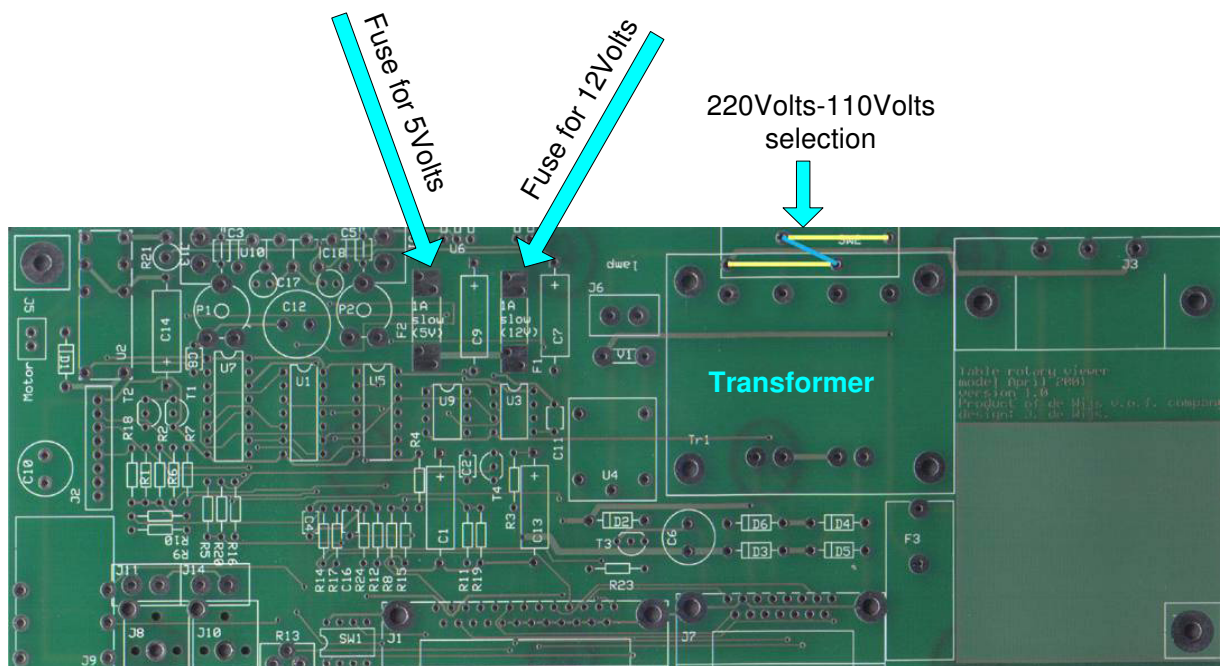
6.3 Connections of the D25 and D15 connectors.

D25 connector:

Connector pin	Description computer side and addressing		Description rotary viewer side	Direction looking from computer side.
1	Strobe	Base+2 bit 0	Not used	Output
2	D0	Base+0 bit 0	Change slide, 1= moving	Output
3	D1	Base+0 bit 1	Lamp, 1=lamp on.	Output
4	D2	Base+0 bit 2	Not used	Output
5	D3	Base+0 bit 3	Not used	Output
6	D4	Base+0 bit 4	Loopthrough to D15 con.	Output
7	D5	Base+0 bit 5	Loopthrough to D15 con.	Output
8	D6	Base+0 bit 6	Loopthrough to D15 con.	Output
9	D7	Base+0 bit 7	Loopthrough to D15 con.	Output
10	Acknowledge	Base+1 bit 6	Button front panel, 1=pressed	Input
11	Busy	Base+1 bit 7	Loopthrough to D15 con.	Output
12	Paper end	Base+1 bit 5	Light gate 'zero' detection.	Input
13	Select out	Base+1 bit 4	Light gate 'stop' detection.	Input
14	Auto feed	Base+2 bit 1	Not used	Output
15	Error	Base+1 bit 3	Loopthrough to D15 con.	Input
16	Init	Base+2 bit 2	Not used	Output
17	Select in	Base+2 bit 3	Not used	Output
18	Gnd			
19	Gnd			
20	Gnd			
21	Gnd			
22	Gnd			
23	Gnd			
24	Gnd			
25	Chassis ground			

D15 Connector: (for language selection box)

Connector pin	Description computer side and addressing		Description rotary viewer side	Direction looking from computer side.
1	Busy	Base+1 bit 7	Loopthrough to D25 con.	Input
2			Ground	
3			+12 Volt.	
4			+5 Volt.	
5	D5	Base+0 bit 5	Loopthrough to D25 con.	Output
6	D6	Base+0 bit 6	Loopthrough to D25 con.	Output
7	D7	Base+0 bit 7	Loopthrough to D25 con.	Output
8	Error	Base+1 bit 3	Loopthrough to D25 con.	Input
9	D4	Base+0 bit 4	Loopthrough to D25 con.	Output
10				
11				
12				
13				
14				
15				

6.4   Electronic component list

R1	10K 1/4 Watt IR detect
R2	10K 1/4 Watt IR detect
R3	100K 1/4 Watt
R4	10K 1/4 Watt
R5	100K 1/4 Watt
R6	10K 1/4 Watt
R7	10K 1/4 Watt
R8	100K 1/4 Watt
R9	180 1/4 Watt
R10	100 1/4 Watt
R11	2K7 1/4 Watt
R12	100K 1/4 Watt
R13	1M 0.15 Watt 10 mm. standing Pot.
R14	wire
R15	2K7 1/4 Watt
R16	wire
R17	wire
R18	100 1/4 Watt (IR LED's)
R19	100K 1/4 Watt
R20	10K 1/4 Watt
R21	22 1 Watt
R23	10K 1/4 Watt
R24	10K 1/4 Watt
P1	10K 0.15 Watt 10mm. Hor. Pot
P2	10K 0.15 Watt 10mm. Hor. Pot
C1	47uF 10 Volt axial
C2	100n 50 Volt polyester
C3	220n 50 Volt polyester
C4	100n 50 Volt polyester
C5	220n 50 Volt polyester
C6	2200uF 25 Volt Elco rad.
C7	100uF 16 Volt Elco ax.
C8	100n 50 Volt polyester
C9	100uF 16 Volt Elco ax.
C10	1000uF 16 Volt Elco rad.
C11	100n 50 Volt polyester
C12	1000uF 16 Volt Elco rad.
C13	47uF 10 Volt axial
C14	100uF 16 Volt Elco ax.
C15	100n 50 Volt polyester
C16	100n 50 Volt polyester
C17	4,7uF 50 Volt Elco rad
C18	4,7uF 50 Volt Elco rad
D1	1N4001
D2	1N4001

D3	1N4001
D4	1N4001
D5	1N4001
D6	1N4001
D7	1N4148
T1	BC547b
T2	BC547b
T3	BC547b
T4	BC547b
U1	4081 Quad And
U2	Relays 2x 12V
U3	LM555 timer IC
U4	Relays 1x 12V
U5	4071 Quad Or
U6	LM7805 1A
U7	4049UBE
U8	L7812CV 1,5A
U9	LM555 timer IC
U10	TDA1519A/N2 amplifier
J1	D25 PCB socket 90º male
J2	Header 8 pins
	Header Socket 8 pins
J3	Euro connector PCB mounted
J5	Header 2 pins
J6	Header 2 pins
	Header Socket 2 pins
	Shrink contacts for Headers
J7	D15 PCB socket 90º male
J8	Single cinch PCB socket
J9	3-Pole socket (Head phone socket)
J10	Single cinch PCB socket
Tr1	Transformer 2x110V 2x6V 12VA
V1	Varistor 250 Volt
SW1	Dip switch 4x 90º
	DIL8 sockets
	DIL14 sockets
	DIL16 sockets
F3	Fuse holder PCB plastic
F1	Fuse holder internal metal clamps
	Opto switches 5mm. Gap
	Wiring to opto coupler and front panel switch 8 leads 70 cm. Long
	Wiring to PL tube lamp 220 Volt 60 cm.
	Wiring to motor; single leads 27 cm.
	PCB of de Wijs company.